

REMARKS

The Office Action mailed November 19, 2010, has been carefully considered.
Reconsideration in view of the following remarks is respectfully requested.

Rejection(s) Under 35 U.S.C. § 103(a)

Claims 1,3 and 8¹ stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. pat. pub. no. 2002/0005581 to Kurata (hereinafter, “Kurata”) in view of U.S. pat. pub. no. 2003/0094662 to Bae et al. (hereinafter, “Bae”).

Independent claims 1 and 8 have been amended to state that the shaping material covers the base zone without extending laterally beyond a vertical projection, on the base zone, of the horizontal bar of the T gate laterally covered with the shaping material. Support for this feature can be found for example in the passage on page 21, lines 5-22. Turning to that passage, it explains first that the etching step is an anisotropic etching. Second, it states that "the upper part of the gate insulating layer 4 extending on either side of a vertical projection of the horizontal bar 8 of the T of the gate on the plane of the layer 4, is no longer covered with the coating material." This means that the shaping material, on the base zone, does not extend laterally beyond a vertical projection of the horizontal bar of the T gate laterally covered with the shaping material.

In Kurata, the shaping material carries the numeral references:

-5 (lateral oxide film), 6 (sidewall insulation films) in figure 2

-18 (sidewall oxide films) in figures 3

¹ Instead of reciting claims 1, 3 and 8 in this portion of the rejection, the Office Action recites claims 4, 5 and 7; however, in the body of the rejection, claims 1, 3 and 8 are addressed, not claims 4, 5 and 7, and it is believed that the recitation of claims 4, 5 and 7 is in error.

-15 (lateral sidewall oxide film), 18 (sidewall oxide films) in figures 4

-37 (lateral sidewall oxide films), 38 (sidewall oxide films) in figures 5

In Kurata, the base zone is located around the base of the vertical bar of the T. The vertical bar of the T is numbered 13; 33. In Kurata, the shaping material extends laterally beyond a vertical projection on the base zone of the horizontal bar of the T gate laterally covered with the shaping material. The horizontal bar of the T is numbered 4; 14 or 14+21.

In Bae, the shaping material is numbered 155 (surface insulating layer pattern) and 175 (lower spacer) in figure 9. The vertical bar of the T is numbered 120 and the horizontal bar of the T is numbered 130. The base zone is covered with the shaping material, and said shaping material extends laterally beyond a vertical projection on the base zone of the horizontal bar of the T gate laterally covered with the shaping material.

The added feature into the independent claims has the advantage that the raised parts 30, 32 of the source and the drain are closer to the channel than in Kurata or Bae. Consequently the access resistance is decreased.

Claims 4, 5 and 7 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kurata in view of Bae as applied to claim 1, and further view of US Pat. No. 6,246,091 (Rodder, hereinafter, “Rodder”).

Claims 4, 5 and 7 variously depend, directly or indirectly, from the base claims addressed above. Rodder fails to remedy the above-mentioned shortcomings of Kurata and Bae with respect to the base claims. Accordingly, claims 4, 5 and 7, which by definition include all the limitations of the base claims, are patentable over the combination of these references.

Claims 6 and 10 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kurata and Bae as applied to claim 1, and further in view of Chen et al. (U.S. pat. no. 6,077,733; hereinafter, “Chen”).

Claims 6 and 10 variously depend, directly or indirectly, from the base claims addressed above. Chen fails to remedy the above-mentioned shortcomings of Kurata and Bae with respect to the base claims. Accordingly, claims 6 and 10, which by definition include all the limitations of the base claims, are patentable over the combination of these references.

Conclusion

In view of the preceding discussion, Applicants respectfully urge that the claims of the present application define patentable subject matter and should be passed to allowance.

If the Examiner believes that a telephone call would help advance prosecution of the present invention, the Examiner is kindly invited to call the undersigned attorney at the number below.

Please charge any additional required fees, including those necessary to obtain extensions of time to render timely the filing of the instant Amendment and/or Reply to Office Action, or credit any overpayment not otherwise credited, to our deposit account no. 50-3557.

Respectfully submitted,
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